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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,949	08/08/2001	Kazuhiro Shimura	P100158-00040	2066

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EXAMINER

MAKI, STEVEN D

ART UNIT PAPER NUMBER

1733

DATE MAILED: 11/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/923,949

Applicant(s)

SHIMURA, KAZUHIRO

Examiner

Steven D. Maki

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1733

- 1) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 2) Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6 (which indirectly depends on claim 1), it is unclear how the description of "a surface shape of said at least one the first cavity and said second cavity is a quadrilateral having two pairs of opposite sides of respectively the same length, and one of said two pairs of the sides is made constant and the other pair is made to change" affects the scope of claim 1. First, it is unclear in which direction (e.g. depth direction, axial direction or circumferential direction) the one pair of sides are made constant and the other pair of sides changes. Second: If it is unclear if "changes" in claim 6 broadens "continuously changes" in claim 1. Third: It is unclear if "the other pair is made to change" in claim 6 is inconsistent with "second length that remains constant" in claim 1.

- 3) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1733

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Awaya et al

5) **Claims 1, 3, 4, 6 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Awaya et al (US 4226274).**

Awaya et al discloses a wear indicator comprising colored rubber. A plurality of wear indicators may be arranged in a rib so as to be isolated from the circumferential grooves. See figure 6. At the tread surface, each wear indicator has a rectangular shape. See figure 6. Since each wear indicator has a triangular cross section (see for example figure 2), the length of each wear indicator in the circumferential direction continuously changes with wear of the tread.

As to claim 19, the claimed pair of cavities reads on two of the v-shaped cavities in which the triangular portions of wear indicators in the figure 6 embodiment of Awaya et al are located. Claim 19 fails to exclude each cavity being completely filled with colored rubber.

As to claim 1, the claimed pair of cavities reads on two of the cavities in which the triangular portions of the wear indicators in the figure 6 embodiment of Awaya et al are located. Claim 19 fails to exclude each cavity being completely filled with colored rubber. Claim 1 fails to require two different cavities. The limitation of "first cavity length that continuously changes" reads on the circumferential length of the wear indicator in figure 6. The limitation of "second length that remains constant" reads on the axial length of the wear indicator in figure 6.

Art Unit: 1733

As to claims 3 and 4, the wall surfaces read on walls of the v-shaped cavity on which the triangular section is disposed. In claim 3, the limitation of the wall surfaces being colored reads on the colored triangular section wear indicator being on the v-shaped walls. As to claim 4, the colored triangular section is buried in the v-shaped cavity since it fills the v-shaped cavity.

As to claim 6, note that the wear indicator has a rectangular shape at the tread surface wherein the longer sides of the rectangle change length with tire wear.

6) Claims 1, 3, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Awaya et al (US 4226274) in view of Havens (US 2261025).

As noted above, claim 1 does not require the cavities to be shaped differently. In any event: It would have been obvious to one of ordinary skill in the art to use Awaya et al's wear indicators in a tread having isolated slits of constant length so as to obtain the benefit of the tread having means to indicate wear (Awaya et al) and means for increasing traction (Havens). The claimed first cavity reads on the v-shaped cavity in which the triangular portion of the wear indicator in the figure 6 embodiment of Awaya et al is located. The claimed second cavity reads on the slit of Havens. In claim 1, "adjacent" fails to require a proximity different than that between the wear indicators and slits suggested by Awaya et al and Havens.

German '833

7) Claim 19 is rejected under 35 U.S.C. 102(b) as being anticipated by German '833 (DE 3627833).

Art Unit: 1733

The claimed pair of cavities reads on two of the slots of German '833. The slot is located in a block, which one of ordinary skill in the art would readily understand is defined by a pair of circumferential grooves. As to "disposed apart and in isolation from a main groove", German '833 discloses this subject matter since the slot 4 is in communication with only one of the circumferential grooves defining the block. It is isolated from the other circumferential groove.

8) Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over German '833 (DE 3627833) in view of Europe '113 (EP 250113).

German '833 which is discussed above is considered to anticipate claim 19. In any event: it would have been obvious to one of ordinary skill in the art to provide German '833's wearing indicating slot so as to be "disposed apart and in isolation from a main groove" since Europe '113 suggests locating wear indicating slots completely within a land portion so as to be disposed apart and in isolation from a main groove. In claim 19, the pair of cavities reads on two of the slots suggested by German '833. The term "adjacent" is a relative term which fails to require a proximity of the cavities not suggested by the above applied prior art.

Japan '613

9) Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '613 (JP 5-77613) in view of German '833 (DE 3627833) and optionally Europe '113 (EP 250113).

Although not clearly claimed, this rejection address the subject matter of claim 1 in combination with each cavity not being completely filled with colored rubber. Japan

Art Unit: 1733

'613, directed to improving wear resistance, discloses a pneumatic tire having a tread comprising blocks wherein some of the blocks have holes. Each hole has a length that remains constant as the depth of the tread surface decreases due to wear. Japan '613 does not disclose providing the tread with wear indicator(s).

As to claim 1, it would have been obvious to one of ordinary skill in the art to provide the tread of Japan '613 with wear indicator(s) such that each wear indicator is in the form of a cavity and each wear indicator has a length which continuously changes with wear since German '833 suggests providing a tread with slots each having a sloping base provided with markings so as to provide a continuous indication of the state of wear of the tire tread. In claim 1, the first cavity having the continuously changing length reads on the slot suggested by German '833 and the second cavity reads on a hole disclosed by Japan '613.

As to "disposed apart and in isolation from a main groove", German '833 suggests this subject matter since the slot 4 is in communication with only one of the circumferential grooves defining the block. It is isolated from the other circumferential groove. In any event: it would have been obvious to one of ordinary skill in the art to provide German '833's wearing indicating slot so as to be "disposed apart and in isolation from a main groove" since Europe '113 suggests locating wear indicating slots completely within a land portion so as to be disposed apart and in isolation from a main groove.

10) Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '613 (JP 5-77613) in view of German '833 (DE 3627833) and optionally

Art Unit: 1733

Europe '113 (EP 250113) as applied above and further in view of Bins (US 3833040).

As to claims 3 and 6, it would have been obvious to one of ordinary skill in the art to color the wall surfaces of the slot of German '833 with a different color than that of surrounding rubber since Bins, directed to indicating wear of a tire tread, suggests coloring groove walls with a layer of colored material so that when the color wears off, the user knows that the tread / tire should be replaced.

11) Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '613 (JP 5-77613) in view of German '833 (DE 3627833) and optionally Europe '113 (EP 250113) as applied above and further in view of French (RE 30518).

As to claims 4 and 6, it would have been obvious to one of ordinary skill in the art to bury a colored member of different color from that of the surrounding rubber in the wear indicating slot 4 of German '833 since French suggests locating a strip of colored material at the bottom of a wear indicating slot in order to facilitate observation of a wear indicating warning.

Remarks

12) Applicant's arguments with respect to claims 1, 3, 4, 6 and 19 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 8-26-03 have been fully considered but they are not persuasive.

Art Unit: 1733

Applicant comments that with the constant length of the second cavity as a reference, the length of the other cavity of which the length changes may be determined such that it is always possible to carry out an accurate measurement of the changing amount of wear. In response, the examiner comments that none of the pending claims require using a constant length cavity as a reference for carrying out an accurate measurement of the changing amount of wear.

Applicant comments the mark portion is isolated in position from the main groove so that a phenomenon of uneven wear does not take place. No unexpected results of uneven wear, for example over Europe '113, have been shown.

Bridges is cited of interest as being similar to Awaya et al.

13) No claim is allowed.

14) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 1733

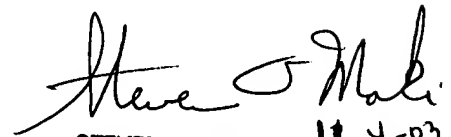
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is 703-308-2068. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-3853. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Steven D. Maki
November 4, 2003


STEVEN D. MAKI
PRIMARY EXAMINER
-GROUP 1300
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11-4-03